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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,890	12/26/2001	Takahiro Kurokawa	2001_1896A	9207

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EXAMINER

SMITH, TYRONE W

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 08/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,890

Applicant(s)

KUROKAWA ET AL.

Examiner

Tyrone W Smith

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,8-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-8 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The abstract of the disclosure is objected to because it is presented in two paragraph format; abstract should be only one paragraph for describing the claimed invention. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. Correction is required. See MPEP § 608.01(b).

2. Claims 1-13 objected to because of the following informalities: The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Appropriate correction is required.

3. Claims 1 and 11 objected to because of the following informalities: Examiner request that the term CS phase is explained more in the claims. Appropriate correction is required.

4. Claims 9 and 13 objected to because of the following informalities: In claim 9 lines 23-25 where it states according to claim 1 should be in the preamble as well as in claim 13 lines 3-4 where it states according to claim 11. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Appropriate correction is required.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 8, 9 10, 11 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz (6022132) in view of Hart et al (5610489).

Regarding Claim 1 Schultz discloses a method and apparatus for programming a CNC machine with a probe which includes a servomotor(s) (Figure 2 items 68, 70, 72 and 76), encoders (Figure 2 items 94, 96, 98 and 76) for detecting the rotation amount of the servo motor(s) and moving mechanism, a moving mechanism driven by the rotation of the motor (Figure 1 item 10) and a controller/servo driver (Figure 2 item 12). Further, the encoders (both rotary and linear) indicate the motor, position of the machine, toolhead and probe, and the workpiece within the machining space. The controller/servo driver detects, from the encoder (X, Y or Z), a signal necessary for driving the servomotor and generates signal instruction to the motor (X, Y or Z servomotor) (column 5 lines 34-67 and column 6 lines 1-22). The encoder detects a signal (Z position or phase) from the Z (phase) servomotor necessary for driving the servomotor. Further, when a power is turned on or computer activation the servo driver returns the subject (workpiece for example) with the moving mechanism to an origin which is the position of the Z phase detected by the encoder(s), then moves the subject to a required position (column 5 lines 6-20 and column 6 lines 23-59). However, Schultz does not disclose the signal or current instruction from the rotary or linear encoder is in the form of rectangular or sine wave pulses.

Hart discloses a method and apparatus for machine control, which discloses both linear and rotary controllers (Figure 2a and 2b. Hart discloses that the encoders produce outputs in rectangular and sine wave pulses (Figure 2c and 2d) (column 3 lines 18-56).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Schultz method and apparatus for programming a CNC machine with a probe with the concept of Hart's method and apparatus for machine control. The advantage of combining the two would provide detection and reduction of relative misalignment of driving means for effecting linear movement of a moveable member.

7. Claims 2-8 and 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tyrone W Smith whose telephone number is 703-306-5987. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi, can be reached on (703) 308-3370. The fax phone number for the organization where this application or proceeding is assigned is 703-308-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Tyrone Smith
Patent Examiner

Art Unit 2837


MARLON FLETCHER
PRIMARY EXAMINER